AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior listing of claims in this application.

1. (currently amended) A method for depositing a platinum group metal on a substrate, comprising the steps of:

depositing ~~said~~ a platinum group metal in gaseous form onto a substrate in a CVD deposition chamber with a flow rate of from about 50 to about 500 sccm in the presence of ~~both~~ an oxygen and nitrous oxide mixture, said mixture comprising about 5% to about 95% by volume oxygen, wherein said ~~oxygen and said nitrous oxide are at a predetermined ratio with~~ mixture has a combined flow rate in the range of from about 1500 sccm to about 2500 sccm, and said platinum group metal being deposited at a predetermined temperature and at a pressure of from about 10 to about 1000 Torr in said CVD deposition chamber.

2. (original) The method according to claim 1, wherein said platinum group metal is selected from the group consisting of Ru, Rh, Pd, Os, Ir and Pt.

3. (original) The method according to claim 2, wherein said platinum based metal is Pt.

4. (original) The method according to claim 1, wherein said predetermined temperature is from about 200^{0}C to about 600^{0}C.

5. (canceled).

6. (currently amended) A method of depositing a platinum group metal on a substrate, comprising the steps of:

introducing a substrate into a CVD deposition chamber;

bubbling ~~a gas over~~ an organic platinum ~~based~~ group metal precursor into a non-reactive gas to form a gaseous mixture;

introducing said ~~gas and said organic platinum based metal precursor~~ gaseous mixture to said CVD deposition chamber at a flow rate of from about 50 to about 500 sccm;

introducing oxygen to said CVD deposition chamber at a predetermined first flow rate;

introducing nitrous oxide to said CVD deposition chamber at a predetermined second flow rate, ~~to provide a total flow rate of~~ said first and said second flow rates having a combined flow rate in the range of from about 1500 sccm to about 2500 sccm; and

depositing said platinum group metal onto said substrate in said CVD deposition chamber at a predetermined temperature and at a pressure of from about 10 to about 1000 Torr.

7. (original) The method according to claim 6, wherein said gas is a non-reactive gas.

8. (previously amended) The method according to claim 6, wherein said organic platinum based metal precursor is selected from the group consisting of cyclopentadienyl trimethylplatinum (IV) and methylcyclopentadienyl trimethylplatinum.

9. (previously amended) The method according to claim 8, wherein said organic platinum based metal precursor is methylcyclopentadienyl trimethylplatinum.

10. (original) The method according to claim 6, wherein said predetermined temperature is from about 200^{0}C to about 600^{0}C.

11. (canceled).

12. (original) The method according to claim 7, wherein said non-reactive gas is selected from the group consisting of nitrogen, helium, neon, argon, krypton, and xenon.

13. (original) The method according to claim 12, wherein said non-reactive gas is selected from the group consisting of helium, argon and nitrogen.

14. (original) The method according to claim 13, wherein said non-reactive gas is helium.

15. (canceled).

16. (canceled).

17. (original) The method according to claim 6, wherein the ratio of oxygen: nitrous oxide in the CVD deposition chamber is from about 5:95::95:5.

18. (currently amended) The method according to claim 17, wherein said ratio is from about ~~46:60::60:40~~ 40:60 to about 60:40.

19. (original) The method according to claim 18, wherein said ratio is about 50:50.

20. (previously amended) The method according to claim 6, wherein said substrate is selected from the group consisting of silicon, TiN, Ti, oxides, Si_3N_2, and silicide.

21. (previously amended) The method according to claim 20, wherein said substrate is selected from the group consisting of borophosphosilicate glass and silicon.

22. (original) The method according to claim 6, wherein said substrate is a capacitor for a memory cell.

23. (original) The method according to claim 6, wherein said platinum based metal is deposited onto said substrate in said CVD deposition chamber for a time of about 75 to about 150 seconds.

24. (original) The method according to claim 6, wherein said platinum based metal is deposited at a thickness of from about 50 to about 1000 Angstroms.

25. (currently amended) A method for depositing platinum onto a substrate, comprising the steps of:

introducing a substrate into a CVD deposition chamber;

bubbling ~~a non-reactive gas over~~ an organic platinum precursor into a non-reactive gas to form a gaseous mixture, said organic platinum precursor selected from the group consisting of cyclopentadienyl trimethylplatinum (IV) and methylcyclopentadienyl trimethylplatinum;

introducing said ~~non-reactive gas and said organic platinum precursor~~ gaseous mixture to said CVD deposition chamber at a flow rate of from about 100 to about 250 sccm;

introducing a ~~50/50 mixture by volume of~~ gaseous mixture of oxygen and nitrous oxide that is from about 5% to about 95% volume of nitrous oxide to said CVD deposition chamber, said mixture of oxygen and nitrous oxide having a combined flow rate in the range of from about 1500 sccm to about 2500 sccm; and

depositing said platinum group metal onto said substrate in said CVD deposition chamber at a temperature of from about 200 to about 600°C and at a pressure of from about 10 to about 1000 Torr ~~to form a continuous, substantially uniform film on said substrate~~.

26. (previously amended) The method according to claim 25, wherein said organic platinum precursor is methylcyclopentadienyl trimethylplatinum.

27. (previously amended) The method according to claim 25, wherein said substrate is selected from the group consisting of silicon, TiN, Ti, oxides, Si_3N_2, and silicide.

28. (previously amended) The method according to claim 27, wherein said substrate is selected from the group consisting of borophosphosilicate glass and silicon.

29. (original) The method according to claim 28, wherein said substrate is a capacitor for a memory cell.

30. (original) The method according to claim 25, wherein said temperature is about 275^{0}C.

31. (original) The method according to claim 30, wherein said pressure is about 30 Torr.

32. (original) The method according to claim 25, wherein platinum is deposited onto said substrate in said CVD deposition chamber for a time of about 100 to about 120 seconds.

33. (original) The method according to claim 25, wherein said platinum based metal is deposited at a thickness of about 500 Angstroms.

34. (original) The method according to claim 25, wherein said non-reactive gas is selected from the group consisting of nitrogen, helium, neon, argon, krypton, and xenon.

35. (original) The method according to claim 34, wherein said non-reactive gas is helium.

36. (canceled).

Claims 37-45 (canceled).

46. (previously presented) The method according to claim 1, wherein said pressure is from about 10 to about 50 Torr.

47. (previously presented) The method according to claim 1, wherein said pressure is from about 15 to about 30 Torr.

48. (previously presented) The method according to claim 6, wherein said pressure is from about 10 to about 50 Torr.

49. (previously presented) The method according to claim 6, wherein said pressure is from about 15 to about 30 Torr.

50. (previously presented) The method according to claim 20, wherein said oxides are selected from the group consisting of borophosphosilicates and phosphosilicates.

51. (previously presented) The method according to claim 21, wherein said substrate is formed of polysilicon.

52. (previously presented) The method according to claim 25, wherein said pressure is from about 10 to about 50 Torr.

53. (previously presented) The method according to claim 25, wherein said pressure is from about 15 to about 30 Torr.--

54. (previously presented) The method according to claim 28, wherein said oxides are selected from the group consisting of borophosphosilicates and phosphosilicates.

55. (previously presented) The method according to claim 21, wherein said substrate is formed of polysilicon.

56. (currently amended) A method for depositing a platinum group metal on a substrate, comprising the steps of:

depositing ~~said~~ a platinum group metal onto a substrate in a CVD deposition chamber in the presence of both oxygen and nitrous oxide, said platinum group metal having a flow rate in the range of from about 50 to about 500 sccm, wherein said oxygen and nitrous oxide ~~are at a predetermined ratio with~~ have a combined flow rate in the range of from about 1500 sccm to about 2500 sccm, said depositing being performed at a predetermined temperature of from about 200°C to about 300°C.

57. (previously presented) The method of claim 56, wherein said step of depositing said metal is performed under a predetermined time of about 45 seconds to about 1000 seconds.

58. (previously presented) The method of claim 57, wherein said predetermined time is preferably of about 75 seconds to about 150 seconds.

59. (previously presented) The method of claim 56, wherein said predetermined temperature is in the range of 250 °C to 300 °C.

60. (canceled)

61. (currently amended) A method for depositing a platinum group metal on a substrate, comprising the steps of:

introducing a substrate into a CVD deposition chamber;

bubbling ~~a gas over~~ an organic platinum ~~based~~ group metal precursor into a non-reactive gas to form a gaseous mixture;

introducing said ~~gas and said organic platinum based metal precursor~~ gaseous mixture to said CVD deposition chamber at a flow rate of from about 50 to about 500 sccm;

introducing oxygen to said CVD deposition chamber at a predetermined first flow rate;

introducing nitrous oxide to said CVD deposition chamber at a predetermined second flow rate, ~~to provide a total flow rate of~~ said first and said second flow rates having a combined flow rate in the range of from about 1500 sccm to about 2500 sccm; and

depositing said platinum group metal onto said substrate in said CVD deposition chamber at a predetermined temperature of from about 200°C to about 300°C.

62. (previously presented) The method of claim 61, wherein said step of depositing said metal is performed under a predetermined time of about 45 seconds to about 1000 seconds.

63. (previously presented) The method of claim 62, wherein said predetermined time is preferably of about 75 seconds to about 150 seconds.

64. (previously presented) The method of claim 61, wherein said predetermined temperature is in the range of 250°C to 300°C.

65. (previously presented) The method of claim 61, wherein oxygen and nitrous oxide are introduced at a ratio of approximately 50:50, with said first flow rate of about 900 sccm and said second flow rate of about 900 sccm.

66. (currently amended) A method for depositing platinum onto a substrate, comprising the steps of:

introducing a substrate into a CVD deposition chamber;

bubbling ~~a non-reactive gas over~~ an organic platinum precursor into a non-reactive gas to form a gaseous mixture, said organic platinum precursor selected from the group consisting of cyclopentadienyl trimethylplatinum (IV) and methylcyclopentadienyl trimethylplatinum;

introducing said ~~non-reactive gas and said organic platinum precursor~~ gaseous mixture to said CVD deposition chamber at a flow rate of from about 100 to about 250 sccm;

introducing a 50/50 mixture by volume of oxygen and nitrous oxide to said CVD deposition chamber, said mixture of oxygen and nitrous oxide having a combined flow rate in the range of from about 1500 sccm to about 2500 sccm;

depositing said platinum group metal onto said substrate in said CVD deposition chamber at a temperature of from about 200°C to about 300°C and a time of from about 45 seconds to about 1000 seconds~~ to form a continuous, substantially uniform film on said substrate~~.

67. (previously presented) The method of claim 66, wherein said temperature is in the range of 250 °C to 300 °C.

68. (previously presented) The method of claim 66, wherein said time is preferably of about 75 seconds to about 150 seconds.